

CLAIMS:

1. An in-home receiver system with a main receiver and at least one further receiver,
the main receiver comprising:
at least one tuner with a tuner input for receiving a high-frequency input signal
5 and a tuner output for supplying a tuner output signal,
at least one modulator for receiving a modulator input signal to supply a high-frequency output signal to the at least one further receiver,
a test signal generator for supplying a test signal to the at least one modulator,
a directing circuit for directing the high-frequency output signal to the tuner
10 input, and
a test evaluator for evaluating whether the tuner output signal is in conformance with the test signal.
2. An in-home receiver system as claimed in claim 1, wherein
15 the main receiver further comprises a switch control circuit for supplying a switching signal to the directing circuit, and
the directing circuit further comprises a switch for supplying either the high-frequency input signal or the high-frequency output signal to the tuner input under control of the switching signal.
- 20 3. An in-home receiver system as claimed in claim 1, wherein
the main receiver further comprises a switch control circuit for supplying a switching signal to the directing circuit, and
the directing circuit further comprises a series arrangement of a high-
25 frequency coupler and a switch being controlled by the switching signal, the series arrangement being arranged between the tuner input and an output of the modulator for supplying either the high-frequency input signal when the switch is open or the high-frequency input signal together with the high-frequency output signal to the tuner input when the switch is closed.

4. An in-home receiver system as claimed in claim 1, wherein the test signal comprises a sine wave at a predetermined frequency, or a bit sequence.

5. An in-home receiver system as claimed in claim 1, wherein the test signal generator comprises a modulator frequency controller for controlling the at least one modulator to vary a frequency of the high-frequency output signal through a desired frequency band.

6. An in-home receiver system as claimed in claim 1, wherein the in-home system comprises

a plurality of tuners, each with a tuner input for receiving a high-frequency input signal and a tuner output for supplying a tuner output signal,

a selector for selecting one of the plurality of tuner output signals,

a test evaluator for producing a conformance signal if the output signal of the selected one of the tuner output signals is in conformance with the test signal,

the selector further being arranged for selecting an other one of the plurality of tuner output signals if the conformance signal indicates that the output signal of the selected one of the tuners is in not in conformance with the test signal.

7. An in-home receiver system as claimed in claim 1, wherein the controller comprises

a tuner controller for controlling the at least one tuner to scan through at least part of the high-frequency band to be received,

a detector for detecting at which frequencies in the at least part of the high-frequency band a broadcast signal is present, and

a frequency setting circuit for setting a modulation frequency of the at least one modulator to interleave with the frequencies in the at least part of the high-frequency band at which a broadcast signal is present.

8. An in-home receiver system as claimed in claim 1, wherein the controller further comprises a timing circuit for supplying the test signal at regular time intervals.

9. An in-home receiver system as claimed in claim 1, wherein the main receiver comprises:

a plurality of tuners with respective tuner inputs for receiving the high-frequency input signal and respective tuner outputs for supplying tuner output signals,
5 an input terminal for connecting an input coaxial cable to supply the high-frequency input signal comprising a broadcast signal,
a first high-frequency splitter for supplying the high-frequency input signal to the tuner inputs,

10 a demodulator circuit for receiving the tuner output signals to supply respective demodulated or decoded video and/or audio signals,

a plurality of modulators coupled to the demodulator circuit for receiving respective modulator input signals to supply high-frequency output signals,

a first high-frequency combiner for combining the high-frequency output signals into a plurality of combined high-frequency output signals,

15 a first output terminal for supplying a first one of the plurality of combined high-frequency output signals to a first one of a plurality of auxiliary receivers via a first output coaxial cable,

20 a second output terminal for supplying a second one of the plurality of combined high-frequency output signals to a second one of the plurality of auxiliary receivers via a second output coaxial cable,

the test signal generator for supplying the test signal to at least one of the plurality of modulators,

the directing circuit for directing a third one of the plurality of combined high-frequency output signals to an input of the first high-frequency combiner, and

25 a test evaluator for evaluating whether tuner output signals are in conformance with the test signal.

10. An in-home receiver system as claimed in claim 9, wherein the main receiver further comprises:

30 a first high-frequency coupler coupled to the input coaxial cable,

a second high-frequency splitter coupled to the first high-frequency coupler for supplying the high-frequency input signal to a second high-frequency coupler and a third high-frequency coupler, the second high-frequency coupler being coupled to the first output

coaxial cable and a third high-frequency coupler being coupled to the second output coaxial cable.

11. An in-home receiver system as claimed in claim 9, wherein the main receiver
5 further comprises a high-frequency switching matrix having
inputs for receiving the high-frequency input signal from the first high-frequency splitter, the
high-frequency output signals of the modulators, the test signals of the test signal generator,
and the tuner output signals, and having outputs to supply the high-frequency input signal to
the tuner inputs, the high-frequency output signals to the first high-frequency combiner, and
10 the test signals and/or the tuner output signals as the modulator input signal to the
modulators.

12. An in-home receiver system as claimed in claim 11, wherein the high-
frequency switching matrix further has an input for receiving the high-frequency output
15 signal.

13. An in-home receiver system as claimed in claim 1, wherein the main receiver
further comprises a circuit for adding an upstream signaling stream onto the high-frequency
input signal.

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14. A main receiver for use in the in-home receiver system as claimed in claim 1,
and comprising:

at least one tuner with a tuner input for receiving the high-frequency input
signal and a tuner output for supplying a tuner output signal,

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at least one modulator for receiving a modulator input signal to supply a high-
frequency output signal to the at least one further receiver,

a test signal generator for supplying a test signal to the at least one modulator,

a directing circuit for directing the high-frequency output signal to the tuner

input, and

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a test evaluator for evaluating whether the tuner output signal is in
conformance with the test signal.

15. In an in-home system comprising:
at least one further receiver, and

a main receiver comprising at least one tuner with a tuner input for receiving a high-frequency input signal and a tuner output for supplying a tuner output signal, and at least one modulator for receiving a modulator input signal to supply a high-frequency output signal to the at least one further video receiver,

5 a method of testing the main receiver comprising:

supplying a test signal to the at least one modulator,

directing the high-frequency output signal to the tuner input, and

evaluating whether the tuner output signal is in conformance with the test

signal.